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SENATE

{ REPORT
No. 93-1254

**NATIONAL POLICY AND PRIORITIES FOR SCIENCE
AND TECHNOLOGY ACT OF 1974**

OCTOBER 9, 1974.—Ordered to be printed

Mr. KENNEDY, from the Committee on Labor and Public Welfare,
submitted the following

R E P O R T

[To accompany S. 32]

The Committee on Labor and Public Welfare, to which was referred the bill (S. 32) to amend the National Science Foundation Act of 1950 in order to establish a framework of national science policy and to focus the Nation's scientific talent and resources on its priority problems, and for other purposes, having considered the same, reports favorably thereon, with an amendment in the nature of a substitute and a title amendment, and recommends that the bill, as amended, do pass.

COMMITTEE AMENDMENTS

The amendments are as follows:

That this Act may be cited as the "National Policy and Priorities for Science and Technology Act of 1974".

STATEMENT OF FINDINGS AND DECLARATION OF POLICY

SEC. 2. (a) The Congress, recognizing the profound impact of science and technology on society, and the interrelations of scientific, technological, economic, social, political, and institutional factors, hereby finds that—

(1) Federal funding for science and technology represents an investment in the future, which is indispensable to sustained national progress;

(2) the manpower pool of scientists and engineers constitutes an invaluable national resource which should be utilized to the maximum extent possible at all times;

(3) the scientific and technological capabilities within the United States, if properly applied and directed, could

effectively assist in improving the quality of life and in anticipating and resolving many critical and emerging national problems;

(4) strong participation by State and local governments is essential to the successful solution of many civilian problems, and in developing programs for the application of science and technology to civilian needs and to setting civilian research and development activities priorities;

(5) the maintenance and strengthening of diversified scientific and technological capabilities in government, industry and the universities, and the encouragement of independent initiatives based on such capabilities, are essential to the most effective use of science and technology in resolving critical and emerging national problems;

(6) a more systematic approach is needed to identify critical and emerging national problems and to analyze, plan, and coordinate Federal science and technology programs, policies, and activities intended to contribute to the resolution of such problems; and

(7) the effectiveness of scientific and technological contributions to improvements in the quality of life and the resolution of critical and emerging national problems depends on the maintenance of a strong base of knowledge in science and advanced technology together with a resource of highly qualified scientists and engineers.

(b) The Congress declares that it is the continuing policy and responsibility of the Federal Government to take appropriate measures directed toward achieving the following goals--

(1) there must be a continuing Federal investment in science and technology adequate to the needs of the Nation;

(2) the level of this investment must be adjusted annually with regard to particular needs and opportunities and the prevalent economic situation;

(3) the Federal investment in science and technology must be allocated annually among the priority needs of the Nation, including the need to maintain the Nation's strength in basic research and education in science and engineering;

(4) scientists, engineers, and technicians must have continuing opportunities for socially useful employment in positions commensurate with their professional, technical capabilities; and

(5) the National capabilities for technological planning and policy formulation must be strengthened.

(c) Therefore, it is declared to be the purpose of this Act to promote the effective application of science and technology to the furtherance of national goals by--

(1) establishing a Council of Advisers on Science and Technology in the Executive Office of the President to

provide a source of scientific and technological analysis and judgment to the President;

(2) establishing an Intergovernmental Science and Technology Advisory Committee to foster the application of science and technology to State and regional needs;

(3) establishing an Interagency Federal Coordinating Committee on Science and Technology to coordinate agency research and development efforts; and

(4) having the President submit an annual Science and Technology Report to the Congress.

TITLE I—COUNCIL OF ADVISERS ON SCIENCE AND TECHNOLOGY

ESTABLISHMENT OF COUNCIL

SEC. 101. (a) There is established in the Executive Office of the President a Council of Advisers on Science and Technology (hereinafter referred to as the "Council"). The Council shall be composed of three Members who shall be appointed by the President, by and with the advice and consent of the Senate from among individuals who, by reason of their training, experience, and attainments, are exceptionally qualified to analyze and interpret scientific and technological developments; to appraise and recommend programs, policies, and activities of the Federal Government in the light of the policy declared in section 2; and are sensitive to the economic, social, esthetic, and cultural needs and interests of the Nation.

(b) The President shall designate one of the members of the Council as Chairman and one as Vice Chairman, who shall act as Chairman in the absence of the Chairman.

(c) Members of the Council shall serve full time and the Chairman of the Council shall be compensated at the rate provided for level II of the Executive Schedule (5 U.S.C. 5313). The other members of the Council shall be compensated at the rate provided for level IV of the Executive Schedule (5 U.S.C. 5315.)

(d) The Council may employ such officers and employees as may be necessary to carry out its functions under this Act. In addition, the Council may employ and fix the compensation of such experts and consultants as may be necessary for the carrying out of its functions under this Act, in accordance with section 3109 of title 5, United States Code (but without regard to the last sentence thereof).

(e) The Council shall have the authority, within the limits of available appropriations, to enter into contracts or other arrangements for the carrying out of organizations or individuals, including other Government agencies, of such activities as the Council deems necessary to carry out the purposes of this Act.

FEDERAL INVESTMENT IN SCIENCE AND TECHNOLOGY

SEC. 102. (a) The Council shall annually appraise progress in science and technology in relation to the needs of the Nation and, taking account of the state of the economy through consultation with the Council of Economic Advisers, shall determine the desired level of Federal investment in science and technology for the fiscal year immediately following the fiscal year in which such determination is made.

(b) On the basis of such determination, the Council shall make appropriate recommendations to the President and the Congress regarding the desired level of Federal investment in science and technology for the fiscal year immediately following the fiscal year in which such recommendations are made.

SCIENCE AND TECHNOLOGY PRIORITIES

SEC. 103. (a) The Council shall annually assess alternative uses of Federal funds for science and technology in relation to scientific and technical opportunities and national needs, and on the basis thereof shall determine a set of priorities for allocating Federal funds among major expenditure areas in science and technology, which pertain to the fiscal year immediately following the fiscal year in which such determination is made.

(b) On the basis of such determination, the Council shall make appropriate recommendations to the President and the Congress regarding such priorities.

SCIENCE AND TECHNOLOGY POLICY ANALYSIS AND PLANNING

SEC. 104. (a) The Council shall serve as a source of scientific and technological analysis and judgment for the President with respect to major policies, plans, and programs of science and technology of the Federal Government. In carrying out this function, the Council shall—

(1) seek to define a coherent approach for applying science and technology to critical and emerging national problems and for coordinating the scientific and technological responsibilities and programs of the Federal departments and agencies in the resolution of such problems;

(2) assist and advise the President in the preparation of the Science and Technology Report, in accordance with section 108 of this title;

(3) gather timely and authoritative information concerning significant developments and trends in science, technology, and in national priorities, both current and prospective, to analyze and interpret such information for the purpose of determining whether such developments and trends are interfering, or are likely to interfere, with the achievement of the policy set forth in section 2 of this Act;

(4) initiate studies and analyses, including systems analyses and technology assessments of alternatives available for the resolution of critical and emerging national problems amenable to the contributions of science and technology and, insofar as possible, determine and compare probable costs, benefits, and impacts of these alternatives;

(5) review and appraise the various programs, policies, and activities of the Federal Government in the light of the policy set forth in section 2 of this Act for the purpose of determining the extent to which such programs, policies, and activities are contributing to the achievement of such policy, and to make recommendations to the President with respect thereto;

(6) report at least once each year to the President on the overall activities and accomplishments of the Council, pursuant to section 108 of this title; and

(7) perform other duties and functions and make and furnish such studies, reports thereon, and recommendations with respect to matters of policy and legislation as the President may request.

FUNCTIONS OF THE CHAIRMAN

SEC. 105. The Chairman of the Council shall, in addition to the other duties and functions set forth in this title—

(1) serve as the Science and Technology Adviser to the President;

(2) serve as Chairman of the Federal Coordinating Committee for Science and Technology established under title II of this Act;

(3) appoint, assign the duties, and fix the compensation of personnel without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and without regard to the provisions of chapter 51 and subchapter III of chapter 53 of such title, relating to classification and General Schedule pay rates, at rates not in excess of the rate prescribed for GS-18 of the General Schedule under section 5332 of such title; and

(4) perform such other duties and functions as the President may request.

COORDINATION WITH OTHER ORGANIZATIONS

SEC. 106. (a) In exercising its powers, functions, and duties under this title, the Council shall—

(1) work in close consultation and cooperation with the heads of the Federal departments and agencies;

(2) utilize the services of consultants, establish such advisory committees, and, to the extent practicable, consult with State and local governmental agencies, with appropriate professional groups, and with such repre-

representatives of industry, the universities, agriculture, labor, consumers, conservation organizations, and other groups, organizations and individuals as it may deem advisable;

(3) hold such hearings in various parts of the Nation as the Council deems necessary, to determine the views of such agencies, groups, and organizations referred to in paragraph (2) of this subsection and of the general public, concerning trends in science and technology; and

(4) utilize to the fullest extent possible the existing services, facilities, and information (including statistical information) of public and private agencies and organizations, and individuals, in order that duplication of effort and expense may be avoided.

(b) Each department, agency, and instrumentality of the executive branch of the Government, including any independent agency, is authorized to furnish the Council such information as the Council deems necessary to carry out its function under this title.

(c) Upon request, the Administrator of the National Aeronautics and Space Administration is authorized to assist the Council with respect to carrying out its activities conducted under paragraph (4) of subsection 104(a) of this title.

STUDY OF FEDERAL ORGANIZATION FOR SCIENCE AND TECHNOLOGY

SEC. 107. (a) Not later than ninety days following appointment of the Council members, the Council shall contract with the National Academy of Sciences to conduct a study in order to recommend improvements in the Federal organization for civilian science and technology.

(b) Such contract shall contain provisions to assure that the study takes adequate account of the impact of Federal scientific and technical programs on—

(1) the generation of scientific and technical knowledge;

(2) the utilization of such knowledge in dealing with economic and social problems and opportunities;

(3) the utilization and enhancement of the Nation's scientific and technical manpower and resources;

(4) the strength of the economy, both domestically and internationally;

(5) the quality of the environment; and

(6) the interests of individuals and groups that may be affected by Federal scientific and technical programs.

(c) The study shall include, without being limited to—

(1) examination and appraisal of the existing Federal organization for civilian science and technology;

(2) consideration of possible improvements in such organization; and

(3) consideration of the establishment of such new departments, agencies, offices, or other organizations as

may serve to strengthen the Nation's scientific and technical enterprise and increase the effectiveness of its application to the solution of national problems.

(d) In conducting its study, the Academy shall make maximum feasible use of related investigations and studies conducted by public and private agencies, including congressional hearings and reports.

(e) The Academy shall transmit to the Council not later than eighteen months after the starting date of the contract, a final report, containing detailed statements of the findings and conclusions of the Academy, together with its recommendations for improvements in the Federal organization for civilian science and technology.

SCIENCE AND TECHNOLOGY REPORT

SEC. 108. (a) The President shall transmit annually to the Congress, beginning October 15, 1975, a Science and Technology Report (hereinafter referred to as the "Report") which shall set forth—

(1) a review of developments of national significance in science and technology, including, but not limited to, the mathematical, physical, social, and life sciences, and civil, chemical, electrical, and mechanical engineering, and other technologies;

(2) the significant effects of current and foreseeable trends in science and technology on the social, economic, and other requirements of the Nation;

(3) a review and appraisal of selected science and technology-related programs, policies, and activities of the Federal Government;

(4) an inventory and projection of critical and emergency national problems the resolution of which might be substantially assisted by the application of science and technology;

(5) the identification and assessment of scientific and technological measures that can contribute to the resolution of such problems, in light of the related social, economic, political, and institutional considerations;

(6) the existing and projected scientific and technological resources, including specialized manpower, that could contribute to the resolution of such problems;

(7) recommendations for legislation on science and technology-related programs and policies that will contribute to the resolution of such problems;

(8) recommendations with regard to Federal investment level and priorities in science and technology, as made by the Council pursuant to sections 102 and 103 of this title.

(b) The Council shall insure that the report is printed and made available as a public document.

(c) If the recommendations in the report regarding Federal investment level and priorities in science and technology

are substantially different from those submitted by the Council to the President, then the report shall include an appendix containing the original recommendations of the Council to the President, along with the Council's supporting justification and the reasons why the President did not accept the recommendations as submitted.

TITLE II—FEDERAL COORDINATING COMMITTEE FOR SCIENCE AND TECHNOLOGY

ESTABLISHMENT AND FUNCTIONS OF FEDERAL COORDINATING COMMITTEE FOR SCIENCE AND TECHNOLOGY

SEC. 201. (a) There is established the Federal Coordinating Committee for Science and Technology (hereinafter referred to as the "Committee").

(b) The Committee shall be composed of the Chairman of the Council of Advisers on Science and Technology and one representative of each of the following: Department of Agriculture, Department of Commerce, Department of Defense, Department of Health, Education, and Welfare, Department of Housing and Urban Development, Department of the Interior, Department of State, Department of Transportation, Veterans Administration, Atomic Energy Commission, National Aeronautics and Space Administration, National Science Foundation, Environmental Protection Agency, and Energy Research and Development Agency. Each such representative shall be an official of policy rank designated by the head of the Federal agency concerned.

(c) The Chairman of the Council of Advisers on Science and Technology shall serve as Chairman of the Committee. The Chairman may make provision for another member of the Council, to act temporarily as Chairman of the Committee.

(d) The Chairman (1) may request the head of any Federal agency not named in subsection (b) of this section to designate a representative to participate in meetings or parts of meetings of the Committee concerned with matters of substantial interest to such agency, and (2) may invite other persons to attend meetings of the Committee.

(e) The Committee shall consider problems and developments in the fields of science and technology and related activities affecting more than one Federal agency, and shall recommend policies and other measures—

(1) to provide more effective planning and administration of Federal scientific and technological programs,

(2) to identify research needs including areas of research requiring additional emphasis,

(3) to achieve more effective utilization of the scientific and technological resources and facilities of Federal agencies, including the elimination of unnecessary duplication, and

(4) to further international cooperation in science and technology.

(f) The Committee shall perform such other related duties as shall be assigned, consonant with law, by the President or by the Chairman.

(g) For the purpose of effectuating this section, each Federal agency represented on the Committee shall furnish necessary assistance to the Committee in accordance with section 214 of the Act of May 3, 1945 (59 Stat. 134; 31 U.S.C. 691). Such assistance may include—

(1) detailing employees to the Committee to perform such functions, consistent with the purposes of this section, as the Chairman may assign to them, and

(2) undertaking, upon request of the Chairman, such special studies for the Committee as come within the functions herein assigned to the Committee.

(h) For the purpose of conducting studies and making reports as directed by the Chairman, standing subcommittees and panels of the Committee may be established in consonance with the provisions of section 214 of the Act of May 3, 1945 (59 Stat. 134; 31 U.S.C. 691).

ABOLITION OF FEDERAL COUNCIL FOR SCIENCE AND TECHNOLOGY

SEC. 201. The Federal Council for Science and Technology established pursuant to Executive Order 10807, dated March 13, 1959, as amended by Executive Order 11381, dated November 8, 1967, is abolished.

TITLE III—NATIONAL SCIENCE FOUNDATION

NATIONAL SCIENCE POLICY

SEC. 301. Section 3(d) of the National Science Foundation Act of 1950 is amended to read as follows:

“(d) The foundation shall recommend and encourage the pursuit of national policies designed to foster research and education in science and engineering, and the application of scientific and technical knowledge to the solution of national problems.”

NATIONAL SCIENCE BOARD

SEC. 302. Section 4 of the National Science Foundation Act of 1950 is amended—

(1) by inserting before the period at the end of subsection (a) a comma and the following: “within the framework of applicable national policies as set forth by the President and the Congress” and

(2) by striking out subsection (c) and inserting in lieu thereof the following:

“(c) The persons nominated for appointment as members of the Board (1) shall be eminent in the fields of science,

social science, engineering, agriculture, industry, education, or public affairs, (2) shall be selected solely on the basis of established records of distinguished service, and (3) shall be so selected as to provide representation of the views of leaders from a diversity of fields from all areas of the Nation. The President is requested, in the making of nominations of persons for appointment as members, to give due consideration to any recommendations for nomination which may be submitted to him by the National Academy of Sciences, the National Academy of Engineering, the National Association of State Universities and Land-Grant Colleges, the Sea Grant Association, the Association of American Universities, the Association of American Colleges, the Association of State Colleges and Universities, or by other scientific, technical, public interest or educational associations."

ASSISTANCE TO COUNCIL

SEC. 303. In order to carry out the purposes of this Act the National Science Foundation is authorized to—

(1) gather and analyze information regarding Federal expenditures for research and engineering activities, and the employment and availability of scientific, engineering, and technical manpower, which the Foundation has assembled pursuant to paragraphs (1), (5), (6), and (7) of section (3)(a) of the National Science Foundation Act of 1950 in order to appraise the implementation of the policies set forth in section 2 of this Act;

(2) provide such information and appraisals to the Council of Advisers on Science and Technology; and

(3) provide such additional information and staff assistance to the Council of Advisers on Science and Technology as the Council may request.

CONTINUING EDUCATION IN SCIENCE AND ENGINEERING

SEC. 304. (a) Not later than ninety days following enactment of this Act, the National Science Foundation shall initiate an educational program of continuing education in science and engineering in order to enable scientists and engineers who have been engaged in their careers for at least five years to pursue courses of study designed to—

(1) provide them with new knowledge, techniques, and skills in their special fields; or

(2) acquire new knowledge, techniques, and skills in other fields which will enable them to render more valuable contributions to the Nation.

(b) The program developed under this section shall include, but not be limited to—

(1) the development of special curriculums and educational techniques for continuing education in science and technology; and

- (2) the award of fellowships to scientists and engineers to enable them to pursue courses of study which provide continuing education in science and engineering.
- (c) From funds available pursuant to section 502, the Foundation is authorized to make grants to, and to enter into contracts with, institutions of higher education and other academic institutions, nonprofit institutes and organizations, and private business firms, for the purpose of developing courses and curriculums specially designed for continuing education in science and technology under this section.
- (d)(1) From funds available pursuant to section 502 the Foundation is authorized to award continuing education fellowships to scientists and engineers to enable them to pursue appropriate courses of study.
- (2) The Foundation shall allocate fellowships under this subsection in such manner, insofar as practicable, as will—
 - (A) attract highly qualified applicants; and
 - (B) provide an equitable distribution of such fellowships throughout the United States.
- (3) The Foundation shall pay to persons awarded fellowships under this section such stipends (including such allowances for subsistence, health insurance, relocation expenses, and other expenses for such persons and their dependents) as it may prescribe by regulation designed to accomplish the purposes of this Act.
- (4) Fellowships shall be awarded under this section upon application made at such times and containing such information as the Foundation shall by regulation require.

TITLE IV—STATE AND REGIONAL SCIENCE AND TECHNOLOGY PROGRAMS

ESTABLISHMENT OF INTERGOVERNMENTAL SCIENCE AND TECHNOLOGY ADVISORY COMMITTEE

SEC. 401. (a) There is established in the National Science Foundation an Intergovernmental Science and Technology Advisory Committee.

(b) The Committee shall be composed of twenty-two members to be appointed as follows:

- (1) Twenty members, two from each of the standard Federal regions, shall be appointed by the President, by and with the advice and consent of the Senate;
- (2) A member of the Council selected by the Chairman of the Council; and
- (3) The Director of the Foundation.

In making appointments under clause (1) of this subsection, the President is requested to consider the appointment of individuals who, by reason of education, experience, or interest, are especially qualified to serve on the Committee and to give due consideration to nominations received from the Council of State Governments, National Governors' Conference, National Conference of State Legislatures, International City

Management Association, National League of Cities/United States Conference of Mayors, National Association of County Officials, and other public interest organizations.

(c) The term of office of each member of the Committee appointed under clause (1) of subsection (b) shall be three years; except that—

(1) the members first taking office shall serve as designated by the President, six for a term of one year, eight for a term of two years, and six for a term of three years; and

(2) any member appointed to fill a vacancy occurring prior to the expiration of the term to which his predecessor was appointed shall be appointed for the remainder of such term.

(3) Each appointed member of the Committee shall, while serving on business of the Committee, be entitled to receive compensation at a rate not to exceed the daily rate prescribed for GS-18 of the General Schedule under section 5332 of title 5, United States Code, including traveltime, and while so serving away from his home or regular place of business he may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as the expenses authorized by section 5703 (b) of title 5, United States Code, for persons in Government service employed intermittently.

FUNCTIONS OF THE COMMITTEE

SEC. 402. (a) The Committee shall advise and assist the Foundation in—

(1) identifying and defining civilian problems at the State, regional, and local levels and the environment in which solutions to these problems ought to be provided;

(2) identifying areas of highest priority for study, assessment, and development of policy alternatives by the Foundation under this title; and

(3) identifying and fostering ways to facilitate the transfer and utilization of results of civilian research and development activities so as to maximize the application of science and technology to civilian needs.

(b) The Committee is authorized to—

(1) assist the Director of the Foundation, as appropriate, in taking account of State and regional needs and opportunities in the formulation of the Foundation's plans and programs;

(2) assist the States, including the furnishing of technical assistance, in establishing State science advisory programs pursuant to section 404;

(3) develop and furnish to the States, at their request, advisory guidelines for the formulation of civilian research and development priorities within each State and within each standard Federal region;

(4) review and evaluate the effectiveness of programs and activities assisted under this title; and

(5) prepare and furnish to the Director of the Foundation for incorporation into the annual report of the Foundation to the Congress, a report of the activities of the Committee under this title, together with such recommendations, including recommendations for additional legislation, as the Committee deems appropriate.

(c) (1) The Committee shall annually elect a Chairman from among its regional members.

(2) The Committee shall meet at the call of the Chairman, but not less than four times a year.

(3) The Foundation shall make available to the Committee such information and assistance as may be required to carry out its functions under this section.

ADMINISTRATIVE PROVISIONS

SEC. 403. (a) Subject to such rules and regulations as may be adopted by the Committee, the Chairman shall have the power to—

(1) appoint and fix the compensation of an executive director, and such additional staff personnel as he deems necessary, without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and without regard to the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates, but at rates not in excess of the maximum rate for GS-18 of the General Schedule under section 5332 of such title, and

(2) procure temporary and intermittent services to the same extent as is authorized by section 3109 of title 5 United States Code.

(b) Each department, agency, and instrumentality of the executive branch of the Government, including independent agencies, is authorized and directed to furnish to the Committee, upon request made by the Chairman or Vice Chairman, such information as the Committee deems necessary to carry out its functions under this title.

GRANTS FOR STATE SCIENCE AND TECHNOLOGY PROGRAMS

SEC. 404. (a) The Director of the National Science Foundation, after consultation with the Intergovernmental Science and Technology Advisory Committee, is authorized to make grants of not to exceed \$100,000 to any State to pay a part of the cost of establishing an Office of State Science and Technology.

(b) No grant may be made under this section unless an application is submitted at such time in such manner and containing or accompanied by such information as the Director after consultation with the Committee requires. Each such application shall contain provisions to assure that—

(1) the office for which assistance is sought under the application will (A) be headed by an official who by

reason of education and experience is qualified to advise the chief executive of the State and other State and local public officials on the application of science and technology to civilian needs relating to that State or locality and (B) have sufficient authority consistent with State law to carry out any functions assigned to that office pursuant to this title: and

(2) the State will assume the cost of the office established pursuant to this title no later than two years after the year in which the application is made.

(c) The Director shall approve any application which meets the requirements of subsection (b), and shall not disapprove any application without affording an opportunity for a hearing.

TITLE V—GENERAL PROVISIONS

DEFINITIONS

Sec. 501. As used in this Act:

(1) The term "Council" means the Council of Advisers on Science and Technology.

(2) The term "Foundation" means the National Science Foundation.

(3) The term "State" means each of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands.

(4) The term "standard Federal region" means each of the following regions:

(A) Region I: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

(B) Region II: the Commonwealth of Puerto Rico, New Jersey, New York, and the Virgin Islands.

(C) Region III: Delaware, the District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia.

(D) Region IV: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

(E) Region V: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

(F) Region VI: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

(G) Region VII: Iowa, Kansas, Missouri, and Nebraska.

(H) Region VIII: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming.

(I) Region IX: Arizona, California, Hawaii, and Nevada.

(J) Region X: Alaska, Idaho, Oregon, and Washington.

AUTHORIZATION OF APPROPRIATIONS

SEC. 502. (a) There are authorized to be appropriated \$8,000,000 for the fiscal year ending June 30, 1975, of which

\$1,500,000 shall be available to carry out the provisions of section 107 of title I, \$2,500,000 shall be available to carry out the other provisions of title I, \$1,500,000 shall be available to carry out the provisions of title III, and \$2,500,000 shall be available to carry out the provisions of title IV; and \$14,000,000 for the fiscal year ending June 30, 1976, of which \$5,000,000 shall be available to carry out the provisions of title I, \$3,500,000 shall be available to carry out the provisions of title III, and \$5,500,000 shall be available to carry out the provisions of title IV.

(b) Funds appropriated pursuant to subsection (a) of this section shall remain available for obligation, for expenditure, or for obligation and expenditure, for such period or periods as may be specified in Acts making such appropriations.

Amend the title so as to read: "A bill to establish a framework for the formulation of national policy and priorities for science and technology, and for other purposes."

SUMMARY

GENERAL

This Act establishes a framework for the formulation of national policy and priorities for science and technology.

DECLARATION OF POLICY

This Act establishes as national policy that: (1) there must be a continuing Federal investment in science and technology which is annually set as to overall level and allocation among priority areas; (2) scientists, engineers, and technicians must have continuing opportunities for socially useful employment in positions commensurate with their professional, technical capabilities; and (3) national capabilities for technological planning and policy formulation must be strengthened.

COUNCIL OF ADVISERS ON SCIENCE AND TECHNOLOGY

A White House Council of Advisers on Science and Technology is established to advise the President with respect to Federal policies, plans, and programs in science and technology. The Council will annually make recommendations to the President and Congress regarding the level of Federal investment in science and technology and the priorities for allocating that investment among major program areas.

COMPENSATION STUDY OF FEDERAL ORGANIZATION FOR SCIENCE AND TECHNOLOGY

The Council will contract with the National Academy of Sciences for a comprehensive, eighteen-month study of the Federal organization for civilian science and technology. The study will take account of the impact of Federal science and technology programs on the economy, the environment, and individuals and groups that may be

affected by such programs, as well as on the Nation's strength in science and technology and its application to the resolution of our social problems.

FEDERAL COORDINATING COMMITTEE FOR SCIENCE AND TECHNOLOGY

This Act redesignates the Federal Council for Science and Technology as the Federal Coordinating Committee for Science and Technology, and gives it the statutory authority to coordinate Federal plans and programs in science and technology. The Chairman of the Council is designated as Chairman of this Committee.

NATIONAL SCIENCE FOUNDATION

The National Science Foundation Act is amended to: (1) require that the Foundation aid in the development of national policies to foster the application of scientific and technical knowledge to the solution of national problems; and (2) clarify the policy-making role of the National Science Board and broaden the membership of the National Science Board to emphasize more industrial, technical, and public membership. The Foundation is authorized to provide information and assistance to the Council. The Foundation is also required to develop an educational program of continuing education in science and engineering to enable scientists and engineers to render more valuable contributions to the Nation. The program will include the developments of special curriculums and educational techniques, as well as the award of fellowships.

STATE AND REGIONAL SCIENCE AND TECHNOLOGY PROGRAMS

This Act establishes an Intergovernmental Science and Technology Advisory Committee to advise the Foundation and the States on the application of science and technology throughout the Nation. The Foundation will make grants of up to \$100,000 to any State to enable it to establish a State Office of Science and Technology.

APPROPRIATIONS

This Act authorizes \$8 million in fiscal year 1975 and \$14 million in fiscal year 1976. In fiscal year 1975, \$2.5 million is for the Council, \$1.5 million for the Academy study, \$1.5 million for Continuing Education, and \$2.5 million for the State Science Program. In fiscal year 1976, \$5 million is for the Council, \$3.5 million for Continuing Education, and \$5.5 million for the State Science Program.

BACKGROUND

The Committee on Labor and Public Welfare began serious consideration of these issues in the Ninety-First Congress. On December 1 and 2, 1969, the Committee held hearings on Postwar Economic Conversion. The Committee heard testimony from Professor Warren L. Smith, Department of Economics, University of Michigan and former member of the Council of Economic Advisers; Dr. Seymour Melman,

economist and professor of industrial engineering at Columbia University; the late Walter P. Reuther, President of the United Auto Workers; Dr. Wilfred Lewis, Jr. of the National Planning Association; the Honorable Archibald S. Alexander, former Assistant Director for Economics of the U.S. Arms Control and Disarmament Agency; and Nathaniel Goldfinger, Director of Research, AFL-CIO.

Additional hearings on Postwar Economic Conversion were held before the Committee in Lexington, Massachusetts on March 23, 1970, and in Framingham, Massachusetts on April 3, 1970. At those hearings the Committee heard testimony from General James Gavin, Chairman of the Board, Arthur D. Little, Inc.; Dr. George Gols of Arthur D. Little; Carroll Sheehan, Commissioner of the Massachusetts Department of Commerce and Development; Bernard O'Keefe, President of E.G. & G. Corporation; D. Justin McCarthy, President of Framingham State College; Joseph Hyman, President of Hycor Corporation; Dr. Arthur S. Obermayer, President of Moleculon Corporation; Dr. Duncan MacDonald, business consultant; and William Alexander, President of the Research, Development, and Technical Employees Association, MIT Laboratories.

The testimony and statements for the record submitted at these hearings provided the Committee with a comprehensive background on the problems of economic conversion and a realization that national legislation was required to enable the country to build a strong base of civilian science and technology.

As Chairman of the Special Subcommittee on the National Science Foundation, Senator Edward M. Kennedy, began developing legislation aimed at meeting needs in this area. On August 14, 1970, he introduced S. 4241, the Conversion Research and Education Act. Although it was not possible to hold hearings on the bill before the end of the Ninety-first Congress, the bill was subjected to close scrutiny by leading authorities in this field throughout the Nation.

After careful consideration of their comments and suggestions, the bill was revised and re-introduced by Senator Kennedy in the Ninety-second Congress on January 25, 1971, as S. 32, the Conversion, Research, Education, and Assistance Act. The bill was referred to the Committee on Labor and Public Welfare and assigned to the Subcommittee on the National Science Foundation.

The bill was circulated among leading authorities throughout the Nation who were expert in various of its aspects, and their comments and suggestions were carefully studied by the Subcommittee. At the same time a companion bill to S. 32 had been introduced in the House of Representatives as H.R. 34, by Congressman John W. Davis and Robert N. Giaimo and one hundred and eleven cosponsors in January 1971. H.R. 34 was virtually identical to S. 32. Consequently the eight days of comprehensive hearings which the House Committee on Science and Astronautics held on H.R. 34 on June 22, 23, 24, July 13, 14, 15, and August 5 and 6, 1971 proved extremely helpful in the National Science Foundation Subcommittee's consideration of S. 32.

Based on the extensive comments and suggestions which were received over these months, from various experts and organizations throughout the country and through the House hearings, Senator Kennedy filed Amendment 469, a major amendment to S. 32 on Octo-

ber 13, 1971. This amendment was designed to take account of many of the suggestions which the Subcommittee had received.

On October 26, and 27, 1971, the Subcommittee on the National Science Foundation held hearings on S. 32, including consideration of Amendment 469. (The hearings also considered S. 1261, the Economic Conversion Loan Authorization Act, which is still under study by the Subcommittee on the National Science Foundation.) Testimony was heard from the Administration spokesman, Dr. William D. McElroy, Director of the National Science Foundation; Paul Robbins, Executive Director of the National Society of Professional Engineers; Jack Golodner, Executive Secretary of the Council of AFL-CIO Unions for Scientific, Professional, and Cultural Employees; Sanford V. Lenz, Chairman, Professional, Technical, and Salaried Conference Board, IUE, AFL-CIO; Mrs. Betty Vetter, Executive Director, Scientific Manpower Commission; Professor Paul H. Thompson, Graduate School of Business Administration, Harvard University; and four unemployed engineers—Robert Fraser from Lincoln, Massachusetts, S. Robert Salow from Newton, Massachusetts, Charles Laible from Cherry Hill, New Jersey, and Nathan N. Budish from Seattle, Washington.

In addition to the testimony received at the hearings, the hearings record also included statements on the legislation from the Comptroller General and the Administration and from twenty-seven organizations and individuals with special competence in this area. Since the hearing record was published, scores of other statements have been received from interested organizations and individuals with respect to S. 32.

Based on all of the information and the views which were received, the bill was further revised and considered by the Special Subcommittee on the National Science Foundation in an Executive Meeting on April 5, 1972. At that meeting, upon the suggestion of Senator Dominick, the Subcommittee agreed to submit the bill (in its revised form) to the Executive Agencies and the General Accounting Office for further comment. Letters were received from sixteen agencies and the GAO, and the specific comments were taken into careful account by the Subcommittee.

Based on those comments, the bill was further revised and considered again by the Subcommittee in Executive Meeting on May 30, 1972. At that meeting, the Subcommittee, without opposition, favorably reported the bill to the full Committee with an amendment in the nature of a substitute and with a title amendment.

The bill was considered by the full Committee on Labor and Public Welfare in Executive Meetings on June 21 and June 28, 1972. At the June 28 meeting, the Committee on Labor and Public Welfare ordered the bill, with a modified amendment in the nature of a substitute and with a title amendment, reported favorably to the Senate. On the roll call vote to report, all seventeen members of the Committee were recorded as voting to report the bill favorably.

On August 17, 1972, the bill was considered by the Senate, and passed by a vote of 70 to 8. Counting Senators who were paired and others recorded in support of the bill, the vote would have been 82 to 10. It was then sent to the House of Representatives where it was referred to the Committee on Science and Astronautics. No action was taken by the House prior to the adjournment of the 92d Congress.

On January 4, 1973, Senator Kennedy reintroduced S. 32. On May 2, 1973, Senator Dominick introduced S. 1686, the Civilian Science and Technology Policy Act of 1973. Both bills were referred to the Senate Committee on Labor and Public Welfare.

S. 2495 was introduced on September 27, 1973 by Senator Magnuson, Senator Moss, and Senator Tunney. The bill was referred jointly to the Committee on Commerce and the Committee on Aeronautical and Space Sciences. On September 28, 1973 unanimous consent was given that when the two Committees report the bill, it would be re-referred to the Committee on Labor and Public Welfare.

On January 18, 1974 a working draft of a revised version of S. 2495 was prepared by the Commerce and Aeronautical and Space Sciences Committees and distributed for comments.

Joint hearings on S. 2495 and the working draft were held by the Commerce and Aeronautical and Space Sciences Committees on March 11 and March 21, 1974.

Subsequent to those hearings, the bill underwent further revisions, and Amendment No. 1537 to S. 2495 was introduced by Senators Magnuson, Moss, and Tunney on June 27, 1974. The Commerce and Aeronautical and Space Sciences Committee held a joint hearing on Amendment No. 1537 to S. 2495 on July 11, 1974. Witnesses at the July 11 hearing included four former Presidential Science Advisers.

The Commerce Committee met in Executive Session on July 31, 1974 and ordered S. 2495 reported, with an amendment in the nature of a substitute. Identical action was taken by the Aeronautical and Space Sciences Committee at its Executive Session held September 18, 1974. On September 18, 1974, S. 2495 was referred to the Committee on Labor and Public Welfare for further consideration.

On October 8, 1974, the Special Subcommittee on the National Science Foundation held a hearing on S. 32, S. 1686 and S. 2495. Testimony was heard from the Administration spokesman, Dr. Guyford H. Stever, Director of the National Science Foundation and Science Adviser; Dr. Edward Wenk, Jr., Chairman of the Committee on Public Engineering Policy of the National Academy of Engineering; and Dr. Thomas G. Fox, Chairman of the Governor's Science Advisory Committee, State of Pennsylvania.

Based on the testimony which was presented at the hearing, the three bills were further revised and considered by the Subcommittee in an Executive Meeting on October 8, 1974. At that meeting, the Subcommittee unanimously favorably reported S. 32, to the full Committee with an amendment in the nature of a substitute and with a title amendment. All seven members of the Subcommittee were recorded as voting to report the bill to the full Committee.

The bill was considered by the full Committee on Labor and Public Welfare on October 8, 1974. The Committee ordered the bill, with an amendment in the nature of a substitute and with a title amendment, reported favorably to the Senate. All sixteen members of the Committee were recorded as voting to report the bill favorably.

NEED

Recent years have been marked by an absence of cohesive national policies for science and technology. Planning for future needs has

been set aside to another time when there is no crisis of the day to be dealt with. Such an approach to what may be one of our most important national resources will not suffice.

The importance of this issue to the health of this nation and the recognition of the inextricable relationship of science and technology to the health of the physical and social environments of our people led to the involvement in this legislation of three committees of the Senate: the Commerce Committee; the Committee on Aeronautical and Space Sciences; and this Committee, the Committee on Labor and Public Welfare. Each Committee demonstrated clearly throughout extensive hearings that providing the President and the Congress with the best possible scientific and technological advice at the highest level of government was of priority importance.

At a time when our nation is facing critical problems of inflation, unemployment, environmental degradation, resource depletion and food shortfalls it is an urgent matter that we reestablish within the White House a high level Council of advisors on science and technology. At this juncture in our history the reordering of national priorities, the changing of emphasis on different areas, the interrelationships between national policies and science and technology have become increasingly compelling. The great spurt in our economic growth and development since World War II has, in large measure, been founded upon a concomitant quantum leap in the growth of scientific knowledge and its translation into technology and implementation. It has become evident that the continued health safety and well being of this nation and others throughout the world will depend on our ability to maintain an environment hospitable to creative scientific work, deriving from the knowledge developed by science and basis for its application to technology. In order to do this it will be essential for us to devise policies, plans, programs and alternately, projects for the advancement of science and technology. We will also require creative institutional innovations, both in the public and private sector to manage and encourage our scientific and technological enterprise.

Witness after witness appearing before this Committee and others in both the Senate and the House of Representatives, have testified to the need for new mechanisms to bring policy making and decisions about the implementation of those policies to the highest councils of our government. That is not now the case: important decisions are all too often made by the cumulative and disparate actions of a broad variety of managers of science and technology.

It is evident that our national problems cannot all be solved from Washington. Solutions will require the involvement and full attention of state and local governments and regional entities.

The proposed bill will provide the Nation with an effective framework for the establishment of national policy and priorities for science and technology, so that the Nation's magnificent reservoir of technical manpower and resources can be directed at the solution of the Nation's problems. The policy provisions of this bill, along with the institutional mechanisms designed to effectuate that policy will make it possible for the Nation to cope with its massive problems in an age of technology.

WITNESSES TESTIMONY

Dr. Guyford H. Stever, Director of the National Science Foundation and Science Adviser presented the Administration's position on S. 32, S. 2495, and S. 1686 to the Special Subcommittee on the National Science Foundation at a hearing on October 8, 1974. He advised the Subcommittee that he had recommended to the President that he strengthen the voice of science in his administration and that he insure a good dialogue with the science community. He pointed to the need to use the science and technology resources of this Nation to full advantage to meet the challenge of maintaining a high standard of living and improving any quality of life in a world of steadily decreasing resources. He cautioned against the legislative action which would diminish the role that the mission agencies must play in addressing problems with major science and technology components. Dr. Stever testified that the establishment of an intergovernmental science and technology advisory body would be a step in an important direction. He called for the mobilization of the Nation's science and technology toward the solution of critical civilian problems. But, speaking on behalf of the Administration, Dr. Stever stated: "I believe it would not be wise to attempt to resolve all the issues through legislation at this time."

Dr. Edward Wenk Jr., Professor of Engineering and Public Affairs of the University of Washington and Chairman of the Committee on Public Engineering Policy of the National Academy of Engineering testified before the Subcommittee at its hearing on October 8, 1974. In his testimony, Dr. Wenk, stated: "I should like to endorse very strongly the general intent of the measure and the proposed apparatus of implementation." In his comments to the Subcommittee, Dr. Wenk strongly endorsed the policy provisions of the bill and the institutional mechanisms it established (the White House Counsel of Advisers on Science and Technology, the interagency Coordinating Committee on Science and Technology, and the Intergovernmental Advisory Committee on Science and Technology). In addition, he endorsed the need for the major study by the National Academy of Sciences of federal organization for science and technology. He also pointed out the need for a program of continuing education in science and engineering, and for strengthening the National Science Foundation's capability to provide the necessary support activities in the development of data and the formulation of national policy and priorities for science and technology.

Dr. Thomas G. Fox, Professor of Chemistry and Polymer Science, Carnegie Mellon University and Chairman of the Governor's Advisory Committee on Science and Technology (to the Governor of Pennsylvania) also testified before the Subcommittee in its hearings on October 8, 1974. The thrust of his testimony focused on the need for a strong program of policy and priorities for science and technology at the State and regional level. He pointed out that this was necessary not only to aid the States in their development of programs of particular relevance to their special needs, but also to provide their valuable inputs to Federal decision makers in the development of Federal policy and priorities for science and technology, which would prove rele-

vant to the real needs of the Nation. Dr. Fox specifically endorsed the creation of the Intergovernmental Advisory Committee on Science and Technology, and the establishment of a grants program for providing seed money to State governments to establish Offices of Science and Technology at the State level.

SECTION-BY-SECTION ANALYSIS

Section 1.—This section states that this Act may be cited as the “National Policy and Priorities for Science and Technology Act of 1974”.

STATEMENT OF FINDINGS AND DECLARATION OF POLICY

Section 2.—This section declares as national policy that: (1) there must be a continuing Federal investment in science and technology adequate to the needs of the Nation; (2) the level of this investment must be adjusted annually with regard to particular needs and opportunities and the prevalent economic situation; (3) the Federal investment in science and technology must be allocated annually among the priority needs of the Nation, including the need to maintain the Nation's strength in basic research and education in science and engineering; (4) scientists, engineers, and technicians must have continuing opportunities for socially useful employment in positions commensurate with their professional, technical capabilities; and (5) the National capabilities for technological planning and policy formulation must be strengthened.

TITLE I—COUNCIL OF ADVISERS ON SCIENCE AND TECHNOLOGY

Establishment of Council

Section 101. This section establishes in the Executive Office of the President a three-member Council of Advisers on Science and Technology, to be appointed by the President, by and with the advise and consent of the Senate.

Federal investment in science and technology

Section 102. This section requires that the Council annually make recommendations to the President and the Congress regarding the desired level of Federal investment in science and technology for the following fiscal year.

Science and technology priorities

Section 103. This section requires that the Council annually make recommendations to the President and the Congress regarding priorities for allocating Federal funds among major expenditure areas in science and technology for the following fiscal year.

Science and technology policy analysis and planning

Section 104. This section states that the Council shall serve as a source of scientific and technological analysis and judgment for the President with respect to major policies, plans, and programs in science and technology of the Federal Government.

Functions of the chairman

Section 105. This section states that the Chairman of the Council shall serve as Science and Technology Adviser to the President and as Chairman of the Federal Coordinating Committee for Science and Technology; and that he shall appoint staff to the Council and perform such other duties as the President may request.

Coordination with other organizations

Section 106. This section states that the Council shall cooperate with other government agencies, hold hearings when necessary, utilize consultants, and avoid duplication of effort. This section also requires agencies of the Executive Branch to furnish information to the Council. This section further states that the National Aeronautics and Space Administration is authorized to assist the Council with regard to systems analyses comparing costs, benefits and impacts of technological alternatives in the resolution of national problems.

Study of Federal organization for science and technology

Section 107. This section requires that the Council contract with the National Academy of Sciences to conduct a comprehensive, eighteen month study designed to recommend improvements in the Federal organization for civilian science and technology. This section requires that the study consider the impact of Federal scientific and technical programs on the economy, the environment, and on individuals and groups that may be affected by such programs, as well as on the maintenance of the Nation's strength in science and technology and its application to the resolution of our social problems.

Science and technology report

Section 108. This section requires that the President annually transmit a Science and Technology Report to the Congress, including recommendations regarding the level of Federal investment and priorities in science and technology. This section requires that any substantial differences between the Council's recommendations to the President and the President's recommendations to the Congress be elucidated in an appendix to the report.

TITLE II—FEDERAL COORDINATING COMMITTEE FOR SCIENCE AND TECHNOLOGY

Section 201. This section establishes a Federal Coordinating Committee for Science and Technology and assigns the same functions to the Committee previously fulfilled by the Federal Council for Science and Technology.

Section 202. This section abolishes the Federal Council for Science and Technology.

TITLE III—NATIONAL SCIENCE FOUNDATION

National science policy

Section 301. This section amends section 3 of the National Science Foundation Act of 1950 to require that the Foundation develop national policies to foster the application of scientific and technical knowledge to the solution of national problems.

Section 302. This section clarifies the policy making role of the National Science Board and broadens the membership of the National Science Board to emphasize more industrial, technical and public representation.

Assistance to council

Section 303. This section requires that the National Science Foundation collect and analyze data on science and technology and provide the results of its analyses to the Council of Advisers on Science and Technology. In addition, the Foundation is authorized to provide such additional information and staff assistance that the Council may request.

Continuing education in science and engineering

Section 304. This section requires that the National Science Foundation develop an educational program of continuing education in science and engineering in order to permit scientists and engineers to acquire new knowledge, techniques, and skills in their special fields or in other fields which will enable them to render more valuable contributions to the Nation. The program shall include special curriculums and techniques for continuing education in science and technology and the award of continuing education fellowships to scientists and engineers.

TITLE IV—STATE AND REGIONAL SCIENCE AND TECHNOLOGY PROGRAMS

Establishment of Intergovernmental Science and Technology Advisory Committee

Section 401. This section establishes, within the National Science Foundation, an Intergovernmental Science and Technology Advisory Committee, consisting of a member of the Council of Advisers on Science and Technology, the Director of the Foundation, and twenty public members from all parts of the Nation.

Functions of the committee

Section 402. This section requires that the Committee: (a) advise and assist the Director in the development of policy alternatives regarding the application of science and technology to civilian needs throughout the various states and regions of the Nation; (b) assist the Foundation in taking account of State and regional needs and opportunities in the formulation of the Foundation's plans and programs; (c) assist the States in establishing State advisory programs in science and technology; (d) advise the States on the formulation of civilian research and development priorities within each State and standard Federal region; (e) evaluate programs assisted under this title; and (f) annually report on the recommendations as the committee deems appropriate.

Administrative provisions

Section 403. This section sets forth the administrative provisions required for the Council to fulfill its responsibilities.

Grants for State science and technology programs

Section 404. This section authorizes the National Science Foundation to make grants of not to exceed \$100,000 to any State to pay a part of the cost of establishing a State office of Science and Technology.

TITLE V—GENERAL PROVISIONS

Definitions

Section 501. This section defines terms used in this Act.

Section 502. This section authorizes \$8,000,000 to carry out the provisions of this Act in fiscal year 1975, and \$14,000,000 to carry out the provisions of this Act in fiscal year 1976.

Title amendment

This amendment amends the title so as to read "A bill to establish a framework for the formulation of national policy and priorities for science and technology, and for other purposes."

VOTE IN COMMITTEE

The committee ordered the bill favorably reported by unanimous vote, the following Senators voting in the affirmative: Williams, Randolph, Pell, Kennedy, Nelson, Mondale, Eagleton, Cranston, Hughes, Hathaway, Javits, Dominick, Schweiker, Taft, Beall, and Stafford.

COST ESTIMATES PURSUANT TO SECTION 252(b) OF THE LEGISLATIVE REORGANIZATION ACT OF 1970

S. 32, as amended, authorizes appropriations for fiscal years 1975 and 1976, as follows: Fiscal year 1975—\$8 million (Title I—\$4 million; Title III—\$1.5 million; Title IV—\$2.5 million). Fiscal year 1976—\$14 million (Title I—\$5 million; Title III—\$3.5 million; Title IV—\$5.5 million).

CHANGES IN EXISTING LAW

In compliance with subsection (4) of rule XXIX of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in *italic*, existing law in which no change is proposed is shown in roman) :

FUNCTIONS OF THE FOUNDATION (42 U.S.C. § 1882)

Sec. 3.

* * * * *

[(d) The Board and the Director shall recommend and encourage the pursuit of national policies for the promotion of basic research and education in the sciences.]

(d) The Foundation shall recommend and encourage the pursuit of national policies designed to foster research and education in science and engineering, and the application of scientific and technical knowledge to the solution of national problems.

NATIONAL SCIENCE BOARD (42 U.S.C. § 1863)

Sec. 4. (a) The Board shall consist of twenty-four members to be appointed by the President, by and with the advice and consent of the Senate, and the Director *ex officio*. In addition to any powers and

functions otherwise granted to it by this Act, the Board shall establish the policies of the Foundation, *within the framework of applicable national policies as set forth by the President and the Congress.*

(b) The Board shall have an Executive Committee as provided in section 7, and may delegate to it or to the Director or both such of the powers and functions granted to the Board by this Act as it deems appropriate.

[(c) The persons nominated for appointment as members of the Board (1) shall be eminent in the fields of the basic, medical, or social sciences, engineering, agriculture, education, research management or public affairs; (2) shall be selected solely on the basis of established records of distinguished service, and (3) shall be so selected as to provide representation of the views of scientific leaders in all areas of the Nation. The President is requested, in the making of nominations of persons for appointment as members, to give due consideration to any recommendations for nomination which may be submitted to him by the National Academy of Sciences, the National Association of State Universities and Land Grant Colleges, the Association of American Universities, the Association of American Colleges, the Association of State Colleges and Universities, or by other scientific or educational organizations.]

(c) *The persons nominated for appointment as members of the Board (1) shall be eminent in the fields of science, social science, engineering, agriculture, industry, education, or public affairs; (2) shall be selected solely on the basis of established records of distinguished service, and (3) shall be so selected as to provide representation of the views of leaders from a diversity of fields from all areas of the Nation. The President is requested, in the making of nominations of persons for appointment as members, to give due consideration to any recommendations for nomination which may be submitted to him by the National Academy of Sciences, the National Academy of Engineering, the National Association of State Universities and Land-Grant Colleges, the Sea Grant Association, the Association of American Universities, the Association of American Colleges, the Association of State Colleges and Universities, or by other scientific, technical, public interest, or educational associations.*

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